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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,087	03/26/2004	Igor Landau	3521.187	8220

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Allston L. Jones
PETERS, VERNY, JONES & SCHMITT, L.L.P.
Suite 230
425 Sherman Avenue
Palo Alto, CA 94306

EXAMINER

EVANS, GEOFFREY S

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,087

Applicant(s)

LANDAU, IGOR

Examiner

Geoffrey S. Evans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,6-14 and 20-23 is/are allowed.
- 6) ☒ Claim(s) 3 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 3 there is no antecedent basis for "the coating".

Please also note that claim 3 currently depends upon itself. Respectfully suggest making claim 3 depend upon claim 2 to obviate this rejection. Claim 3 would then be considered allowable.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crouch et al. in U.S. Patent No. 6,580,561 in view of Sussmann et al. in EP 718,642 and Codella in U.S. Patent No. 5,706,135 and Morita in U.S. Patent No. 6,770,844 B2. Crouch et al. discloses a beam splitter apparatus with a thermally conductive frame (element 26) and a window (element 20) that is not made of diamond that conducts heat to the frame. Sussmann et al. teaches in column 2, lines 32-36 that the material diamond has high thermal conductivity and resistance to thermal shock. Codella teaches using a diamond beam splitter because it has effective transmission and deflection for incident radiation over a wide range of wavelengths (see column 3, line 49 to column 4, line 3). Morita teaches having a first polarizing beam splitter at Brewster's angle so that the reflectance of the P-Polarized component becomes zero (e.g. see

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column 5, lines 50-54) and so that each part of the split beam is equal in intensity (see column 3, lines 41-54 and column 4, lines 47-57). It would have been obvious to adapt Crouch et al. in view of Sussmann et al., Codella and Morita to provide diamond as the beam splitter material to increase the thermal conductivity of the beamsplitter so that more powerful radiation beams can be split without damaging the beamsplitter, and to dispose the beamsplitter at Brewster's angle to precisely separate the P-Polarized component from the S-Polarized component. Regarding claim 16, Morita teaches having a second beam splitter (element 9b) after a first beam splitter (element 9a). It would have been obvious to adapt Crouch et al. in view of Sussmann et al. Codella and Morita to provide this to create three beams. Regarding claim 18 and 19, Codella teaches using a coating (see column 4, lines 65-68) to enhance reflectivity at a desired wavelength.). It would have been obvious to adapt Crouch et al. in view of Sussmann et al., Codella and Morita to provide this to enhance reflectivity at a desired wavelength.

4. Applicant's arguments filed 7 March 2005 have been fully considered but they are not persuasive. The newly applied Morita (U.S. Patent Number 6,770,844) discloses having a polarizing beam splitter at the Brewster's angle.


5. Claims 1,2,4,6-14 and 20-23 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

GSE


Geoffrey S. Evans
Primary Examiner
Group 1700